desmos

Unit 7.1, Practice Day 2

Answer Key

Task 1: Two Buildings

Partner A	Partner B
1. The library is actually 18 m tall.	1. The museum is actually 27 m tall.
2. The museum is 5 cm wide in the drawing.	2. The library is 4 cm wide in the drawing.
Explanations vary. The actual width is $2.5 \cdot 9 = 22.5$ meters, so the scale drawing is $2.5 \cdot 2 = 5$ centimeters.	*Explanations vary.* The actual width is $2 \cdot 9 = 18$ meters, so the scale drawing is $2 \cdot 2 = 4$ centimeters.

Task 2: Paper Towns

Partner A	Partner B
1. A rectangle 12 cm wide and 9 cm tall.	1. A rectangle 8 cm wide and 6 cm tall.
2. The paper town should be 4.5 cm from the southern edge of their drawing.	2. The paper town should be 4 cm from the southern edge of their drawing.
3. The actual area of Weston County is about $45 \cdot 45 = 2025$ square miles.	3. The actual area of Weston County is about $45 \cdot 45 = 2025$ square miles.

Task 3: Dinosaurs!

Partner A	Partner B
1. Darius's drawing. *Explanations vary.* Darius's drawing will take up less space because 15 m represents 3 cm in Binta's drawing but only 2 cm in Darius's.	1. Darius's drawing. *Explanations vary.* Darius's drawing will take up less space because 15 m represents 3 cm in Binta's drawing but only 2 cm in Darius's.
2. The length of the dinosaur is 4 cm in Darius's drawing.	2. The height of the dinosaur is 4.5 cm in Binta's drawing.

Task 4: What's the Scale?

Partner A	Partner B
1. 4 micrometers to 1 cm, 0.0000004 m to 1 cm (or equivalent).	1. 5 micrometers to 1 cm, 20 micrometers to 4 cm (or equivalent).
2. 8 micrometers represents 2 cm on the epidemiologist's first drawing.	2. 10 micrometers represents 2 cm on the epidemiologist's second drawing.

Are You Ready for More?

Responses vary. One possibility is 3 cm to 9 m for the library and 2 cm to 9 m for the museum.

Are You Ready for Even More?

1. Empire State Building: **B**
2. Hagia Sophia: **A, D**